

| L Number | Hits | Search Text | DB | Time stamp |
|----------|--------|--|--------------------|------------------|
| 1 | 2619 | polymer near membrane | USPAT | 2002/02/08 12:30 |
| 2 | 892 | battery near separator | USPAT | 2002/02/08 12:30 |
| 3 | 315016 | polyolefin or polyethylene or polypropylene | USPAT | 2002/02/08 12:31 |
| 4 | 31566 | surface near treatment or surface near treating | USPAT | 2002/02/08 12:32 |
| 5 | 6852 | surface near hydrophilic or surface near hydrophobic | USPAT | 2002/02/08 12:32 |
| 6 | 7225 | surface near hydrophilic or surface near hydrophobic | USPAT; US-PGPUB | 2002/02/08 12:32 |
| 7 | 1408 | (surface near treatment or surface near treating) and (surface near hydrophilic or surface near hydrophobic) | USPAT; US-PGPUB | 2002/02/08 12:33 |
| 8 | 897 | ((surface near treatment or surface near treating) and (surface near hydrophilic or surface near hydrophobic)) and (polyolefin or polyethylene or polypropylene) | USPAT; US-PGPUB | 2002/02/08 12:33 |
| 10 | 1453 | (polymer near membrane) and (polyolefin or polyethylene or polypropylene) | USPAT; US-PGPUB | 2002/02/08 12:33 |
| 9 | 15 | ((surface near treatment or surface near treating) and (surface near hydrophilic or surface near hydrophobic)) and (polyolefin or polyethylene or polypropylene) and (polymer near membrane) | USPAT; US-PGPUB | 2002/02/08 12:57 |
| 11 | 8 | ("3231530") or ("3853601") or ("3951815") or ("4039440") or ("4340482") or ("4346142") or ("5085775") or ("5294346").PN. | USPAT | 2002/02/08 13:08 |
| 12 | 505015 | ion particles | USPAT | 2002/02/08 13:12 |
| 13 | 13776 | electron same irradiat\$4 | USPAT | 2002/02/08 13:09 |
| 14 | 23336 | electron same radiat\$4 | USPAT | 2002/02/08 13:09 |
| 15 | 30889 | (electron same irradiat\$4) or (electron same radiat\$4) | USPAT | 2002/02/08 13:09 |
| 16 | 31566 | (ion particles) same radiation irradiate | USPAT | 2002/02/08 13:10 |
| 17 | 284938 | radiation irradiate irradiation radiating irradiating | USPAT | 2002/02/08 13:11 |
| 18 | 26566 | (radiation irradiate irradiation radiating irradiating) same (ion particles) | USPAT | 2002/02/08 13:11 |
| 19 | 27991 | (radiation irradiate irradiation radiating irradiating) same electron | USPAT | 2002/02/08 13:12 |
| 20 | 47402 | ((radiation irradiate irradiation radiating irradiating) same (ion particles)) or ((radiation irradiate irradiation radiating irradiating) same electron) | USPAT | 2002/02/08 13:12 |
| 21 | 4507 | ion adj bombardment | USPAT | 2002/02/08 13:12 |
| 22 | 124 | ionic adj particles | USPAT | 2002/02/08 13:12 |
| 23 | 289 | ion adj particles | USPAT | 2002/02/08 13:13 |
| 24 | 26 | (ion adj particles) same (radiation irradiate irradiation radiating irradiating) | USPAT | 2002/02/08 13:13 |
| 25 | 7 | (ionic adj particles) same (radiation irradiate irradiation radiating irradiating) | USPAT | 2002/02/08 13:13 |
| 26 | 33 | ((ion adj particles) same (radiation irradiate irradiation radiating irradiating)) or ((ionic adj particles) same (radiation irradiate irradiation radiating irradiating)) | USPAT | 2002/02/08 13:13 |
| 27 | 0 | ((ion adj particles) same (radiation irradiate irradiation radiating irradiating)) or ((ionic adj particles) same (radiation irradiate irradiation radiating irradiating))) and (polymer near membrane) | USPAT | 2002/02/08 13:13 |
| 28 | 0 | ((ion adj particles) same (radiation irradiate irradiation radiating irradiating)) or ((ionic adj particles) same (radiation irradiate irradiation radiating irradiating))) and (battery near separator) | USPAT | 2002/02/08 13:13 |

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| 29 | 10 | ((ion adj particles) same (radiation irradiate irradiation radiating irradiating)) or ((ionic adj particles) same (radiation irradiate irradiation radiating irradiating)) and (polyolefin or polyethylene or polypropylene) | USPAT | 2002/02/08 13:17 |
| 30 | 320 | 522/157,158,159,161.ccls. | USPAT | 2002/02/08 13:18 |
| 31 | 423 | 522/109,110,11,112.ccls. | USPAT | 2002/02/08 13:18 |
| 32 | 0 | 522/157,158,159,161.ccls. and (ion adj bombardment) | USPAT | 2002/02/08 13:18 |
| 33 | 0 | 522/157,158,159,161.ccls. and (ionic adj particles) | USPAT | 2002/02/08 13:19 |
| 34 | 1 | 522/157,158,159,161.ccls. and (ion adj particles) | USPAT | 2002/02/08 13:19 |
| 35 | 132 | 522/157,158,159,161.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4)) | USPAT | 2002/02/08 13:21 |
| 36 | 3 | (522/157,158,159,161.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4))) and (polymer near membrane) | USPAT | 2002/02/08 13:21 |
| 37 | 163 | 522/109,110,11,112.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4)) | USPAT | 2002/02/08 13:21 |
| 38 | 0 | (522/109,110,11,112.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4))) and (polymer near membrane) | USPAT | 2002/02/08 13:21 |
| 39 | 3 | (522/109,110,11,112.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4))) and (battery near separator) | USPAT | 2002/02/08 13:23 |
| 40 | 3 | ((522/109,110,11,112.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4))) and (battery near separator)) not ((522/157,158,159,161.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4))) and (polymer near membrane)) | USPAT | 2002/02/08 13:24 |
| 41 | 55 | (522/109,110,11,112.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4))) and vacuum | USPAT | 2002/02/08 13:25 |
| 42 | 1 | ((522/109,110,11,112.ccls. and ((electron same irradiat\$4) or (electron same radiat\$4))) and vacuum) and ((surface near treatment or surface near treating) and (surface near hydrophilic or surface near hydrophobic)) | USPAT | 2002/02/08 13:25 |
| 43 | 0 | 522/109,110,11,112.ccls. and (ion adj bombardment) | USPAT | 2002/02/08 13:25 |
| 44 | 0 | 522/109,110,11,112.ccls. and (ionic adj particles) | USPAT | 2002/02/08 13:26 |
| 45 | 97 | 522/157,158,159,161.ccls. and vacuum | USPAT | 2002/02/08 13:26 |
| 46 | 1 | (522/157,158,159,161.ccls. and vacuum) and ((surface near treatment or surface near treating) and (surface near hydrophilic or surface near hydrophobic)) | USPAT | 2002/02/08 13:26 |
| 47 | 77 | (522/157,158,159,161.ccls. and vacuum) and (polyolefin or polyethylene or polypropylene) | USPAT | 2002/02/08 13:27 |
| 48 | 1 | ((522/157,158,159,161.ccls. and vacuum) and (polyolefin or polyethylene or polypropylene)) and (polymer near membrane) | USPAT | 2002/02/08 13:27 |
| 49 | 63 | ((522/157,158,159,161.ccls. and vacuum) and (polyolefin or polyethylene or polypropylene)) and surface | USPAT | 2002/02/08 13:36 |
| 50 | 6 | ((522/157,158,159,161.ccls. and vacuum) and (polyolefin or polyethylene or polypropylene)) and hydrophilic | EPO; JPO; DERWENT | 2002/02/08 13:37 |
| 51 | 21211 | polymer and membrane | EPO; JPO; DERWENT | 2002/02/08 13:37 |
| 52 | 17899 | battery and separator | | |

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| 53 | 317557 | polyolefin or polyethylene or polypropylene | EPO; JPO; DERWENT | 2002/02/08 13:37 |
| 54 | 217 | "ion particles" | EPO; JPO; DERWENT | 2002/02/08 13:37 |
| 55 | 39 | "ionic particles" | EPO; JPO; DERWENT | 2002/02/08 13:37 |
| 56 | 241299 | electron | EPO; JPO; DERWENT | 2002/02/08 13:37 |
| 57 | 377541 | irradiation radiation irradiate | EPO; JPO; DERWENT | 2002/02/08 13:38 |
| 58 | 2272 | ((polymer and membrane) and (polyolefin or polyethylene or polypropylene)) and | EPO; JPO; DERWENT | 2002/02/08 13:39 |
| 59 | 0 | ((polymer and membrane) and (polyolefin or polyethylene or polypropylene)) and "ion particles" | USPAT | 2002/02/08 13:39 |
| 60 | 0 | ((polymer and membrane) and (polyolefin or polyethylene or polypropylene)) and electron | USPAT | 2002/02/08 13:39 |
| 61 | 0 | ((polymer and membrane) and (polyolefin or polyethylene or polypropylene)) and (irradiation radiation irradiate) | USPAT | 2002/02/08 13:39 |
| 62 | 0 | (battery and separator) and (polyolefin or polyethylene or polypropylene) | USPAT | 2002/02/08 13:39 |
| 63 | 0 | (battery and separator) and "ion particles" | USPAT | 2002/02/08 13:39 |
| 64 | 0 | (battery and separator) and "ionic particles" | USPAT | 2002/02/08 13:39 |
| 65 | 0 | (battery and separator) and electron | USPAT | 2002/02/08 13:39 |
| 66 | 0 | (battery and separator) and (irradiation radiation irradiate) | USPAT | 2002/02/08 13:40 |
| 67 | 0 | (polymer and membrane) and (irradiation radiation irradiate) | USPAT | 2002/02/08 13:40 |
| 68 | 0 | (polymer and membrane) and electron | USPAT | 2002/02/08 13:40 |
| 69 | 0 | (polymer and membrane) and "ionic particles" | USPAT | 2002/02/08 13:40 |
| 70 | 0 | (polymer and membrane) and "ion particles" | USPAT | 2002/02/08 13:40 |
| 71 | 0 | (polyolefin or polyethylene or polypropylene) and "ion particles" | USPAT | 2002/02/08 13:40 |
| 72 | 0 | (polyolefin or polyethylene or polypropylene) and "ionic particles" | USPAT | 2002/02/08 13:40 |
| 73 | 0 | (polyolefin or polyethylene or polypropylene) and electron | USPAT | 2002/02/08 13:40 |
| 74 | 0 | (polyolefin or polyethylene or polypropylene) and (irradiation radiation irradiate) | USPAT | 2002/02/08 13:41 |
| 75 | 0 | ((polymer and membrane) and (polyolefin or polyethylene or polypropylene)) and (battery and separator) | USPAT | 2002/02/08 13:42 |
| 76 | 231700 | surface and modification | EPO; JPO; DERWENT | 2002/02/08 13:42 |
| 77 | 9358 | surface and modification | EPO; JPO; DERWENT | 2002/02/08 13:42 |
| 78 | 523 | ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and | EPO; JPO; DERWENT | 2002/02/08 13:43 |
| 79 | 56 | ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and (irradiation radiation irradiate) | EPO; JPO; DERWENT | 2002/02/08 13:43 |
| 80 | 28 | ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and irradiating | EPO; JPO; DERWENT | 2002/02/08 13:43 |
| 81 | 64 | ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and (irradiation radiation irradiate) ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and irradiating | EPO; JPO; DERWENT | 2002/02/08 13:43 |

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| 82 | 16 | ((((surface and modification) and (polyolefin or polyethylene or polypropylene)) and (irradiation radiation irradiate)) ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and irradiating)) and electron | EPO; JPO; DERWENT | 2002/02/08 13:47 |
| 83 | 0 | ((((surface and modification) and (polyolefin or polyethylene or polypropylene)) and (irradiation radiation irradiate)) ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and irradiating)) and "ionic particles" | EPO; JPO; DERWENT | 2002/02/08 13:47 |
| 84 | 1 | ((((surface and modification) and (polyolefin or polyethylene or polypropylene)) and (irradiation radiation irradiate)) ((surface and modification) and (polyolefin or polyethylene or polypropylene)) and irradiating)) and "ion particles" | EPO; JPO; DERWENT | 2002/02/08 13:47 |